de Clinenca, R. Solimoens, Brazil; from the collection of Mr. J. J. Mounsey, 1913.

Hylella ocellata.

Tongue circular, entire, and slightly free behind. Head broader than long, very strongly depressed; snout rounded, not projecting, as long as the eye, which is obliquely turned forward; no canthus rostralis, loreal region feebly concave; nostril near the tip of the snout; interorbital space broader than the upper eyelid; tympanum distinct, 2 the diameter of the eye. Fingers rather long, with moderately large disks, outer one-fourth webbed. Hind limb very slender; tibiotarsal articulation reaching beyond the tip of the snout; tibia seven times as long as broad, $\frac{2}{3}$ the length of head and body. Toes 2 webbed. Skin smooth, belly granular. Violet-blue above (in spirit), with round white spots, which are small and crowded on the sides of the head and on the limbs and large and scattered, and surrounded by a blackish ring, on the back; the blue colour forms a very narrow band on the thigh; upper lip with a white edge; sides and lower parts white.

From snout to vent 29 mm.

A single specimen from Huancabamba, E. Peru, above 3000 feet (coll. E. Boettger, 1912).

XLII.—Notes on and Descriptions of some Sawflies from the Australian Region. By S. A. Rohwer, Forest Insects, U.S. Bureau of Entomology, Washington, D.C.

This short paper, which is a contribution from the Branch of Forest Insects, United States Bureau of Entomology, contains the descriptions of four new species of sawflies. One of these species is especially interesting, because it represents a new genus which is the basis of a new subfamily.

The material upon which this paper is based was submitted for study by the British Museum (Natural History), and all

the types will be returned to that institution.

Xiphydria obtusiventris, sp. n.

In Konow's table of Xiphydria this runs to fumicornis, Konow, but it differs from the description of that species in

a number of ways and does not seem to be closely allied. The unusual short ovipositor and ninth tergite cause the abdomen to be rounded, not tapering, apically, and gives

this new species a distinctive appearance.

Female.—Length to end of abdomen 8 mm.; anterior margin of clypeus rounded, medianly depressed, but with a median protuberance, which at first sight gives the impression that there is a small median tooth; malar space about half as long as the width of mandibles at the base; surface of clypeus with dorsad-ventrad striæ; face and front reticulate; middle fovea small, indistinct; ocelli in a low triangle, the postocellar line longer than the ocellar line; vertex and posterior orbits finely aciculate; antennæ distinctly tapering apically, 18-jointed, the third joint distinctly longer than fourth but not as long as 4 plus 5; pedicellum not half as long as third joint; scape subequal in length with third joint; proscutum broad, well defined by foveolate notauli, but the median longitudinal furrow is feeble; surface of sentum and prescutum reticulate, with a more sparsely sculptured area at the anterior middle of prescutum and lateral middle of scutum; scutellum finely granular anteriorly, smooth and shining posteriorly; sides of pronotum granular, but with many longitudinal raised lines in addition; anterior part of mesepisternum reticulate, the posterior portion smooth, polished; abdomen finely granular, but the depressed apical margins of the tergites are almost without sculpture; ninth tergite short, rounded apically, giving the end of the abdomen somewhat the same appearance as in Oryssus; ovipositor broad; straight above, obtusely pointed apically and tapering from a broad base, not extending much beyond the apical margin of tergites; legs normal; venation usual, the intraradius joins the radius about one-fourth the length of the intraradius from the end of the second cubital. Black; antennæ and legs ferruginous; wings hyaline, with a faint yellowish tinge; venation pale brown, stigma dark brown; mandibles and sheath piceous.

Type-locality. Kuranda, N. Queensland, Australia.

Described from a single female collected May 3-June 2, 1913, by R. E. Turner at an altitude of 1100 ft.

Type. British Museum (Natural History).

ZENARGINÆ, subfam. nov.

Based on the genus Zenarge described below, and belongs to the family Argidæ, where it may be readily separated from either of the subfamilies by the following key:—

Subfamilies of Argidæ.

Anal vein complete and separate for its entire length; first and second anal cells separated by an oblique interanal vein; anella and recurrentella wanting. Zenarginæ. Anal vein either partly or entirely wanting; first anal cell wanting or small and separated from the second by the submedian vein; anella and recurrentella present

1. Intercosta present Intercosta wanting

Arginæ. Sterictiphorinæ.

The Argids, largely because of their three-jointed antennæ, have long been considered as a distinct group, but most classifications have failed to show any relationship between them and such groups as the Perreyiidæ, Loboceridæ, or Pterygophoridæ. A study of these four families shows, however, that they have much in common, and it is not unlikely that they had a common origin and are phylogenetically closely allied. The subfamily Zenargine adds some evidence to this assumption, because it has certain characters which suggest an affinity with the Perceyiidae and certain others which suggest Lobocerida. The venation in the Zenarginæ is different from all other sawflies. The anterior wing probably represents a generalized Argid, because, with the exception of the complete anal vein, it presents nothing remarkable. The apex of the radial cell and the form of the radial and cubital cells, especially at the base, however, suggest Loboceras. The hind wing is much more specialized than the hind wing of the Argids, because of the loss of anella and recurrentella, and is not unlike Perrevia. The shape and foveolation of the head is not typical of the Argids, but recalls more the head of some of the Perreviidæ.

In MacGillivray's classification the genus Zenarge runs to the subfamily Lophyrinæ, but it has but little in common with this group, and does not even resemble it closely in

venation.

ZENARGE, gen. nov.

Genotype. Zenarge turneri, Rohwer.

Clypeus long, the dorsad-ventrad length nearly half as great as the apical width, the anterior margin rounded laterally and emarginate medianly, the dorsal margin composed of three sections, the lateral sections half the length of the median section, the entire dorsal margin sharply defined;

labrum short, nearly truncate apically; malar space about one-third as long as the width of mandibles at base; inner margin of eyes slightly converging towards the clypeus, the area between them wider than high and the distance between them at the clypeus greater than the length of the eve; ocelli in a low triangle, the posterior ones distinctly in front of the supraorbital line; width of posterior orbits about two-thirds the cephal-caudad length of eye; antennæ 3-jointed, the third thickened apically in female, but nearly of a uniform thickness in male; pronotum well developed laterally; prescutum well defined and with a faint median longitudinal depression; anterior margin of the scutchum subangulate, the posterior margin rounded, the surface convex; first parapteron present, but in specimens in which the pronotum fits close it is concealed by a lobe-like projection of the pronotum; sternauli present but not sharply defined; mesepimeron large, with a cephal-candad suture at about the middle; second plenral suture straight; third pleural suture straight; the metepisternum and metepimeron of equal height; propodeal spiracle large, elongate-oval, and placed near the base on the dorsal surface; metascutellum distinct; metapostnotum much reduced, hardly visible; propodeum completely chitinized and without a median suture; abdomen cylindrical; ninth tergite not especially large laterally; cerci distinct; sheath with the lower margin much thickened, the ventral surface sculptured and with some long hair; basitarsi distinctly shorter than the following joints; claws simple; intermediate tibiæ armed with a pair of spines at the apical third; posterior tibiæ armed with a single spine at the apical third; costal cell rather narrow; intercostal vein present; radial cell without a cross-vein or a distinct appendage, pointed at apex; three closed cubital cells, the second and third each receiving a recurrent near the base; basal vein joining the subcosta a short distance before the origin of the cubitus, longer than the first recurrent, therefore not parallel with it; first discoidal cell similar in outline to that of Caloptilia; nervulus received at about its length from the basal vein; anal vein complete, the first and second anal cells very much the same as in Pseudosiobla; radiellan cell without an appendage; one closed cubitellan cell; recurrentella wanting; anella wanting.

Zenarge turneri, sp. n.

Female.—Length 10 mm. Anterior margin of the clypeus arcuately emarginate medianly; supraclypeal area convex,

triangular in outline; median fovea rather large, deep, with sloping walls, nearly circular in outline; antennal furrows very poorly defined but present; ocellar basin shallow, rather large, triangular in outline but only poorly limited below; postocellar line distinctly shorter than the ocellocular line, subequal with the ocelloccipital line; postocellar furrow present; postocellar area poorly limited laterally, much wider than long; head shining, front with rather spare punctures; thorax shining, with small scattered punctures; stigma three times as long as wide, of nearly uniform width for basal two-thirds, then gradually tapering to metacarpus; third cubital cell narrowed above, the third intercubitus subequal in length with the third abcissa of the radius; abdomen shining; sheath seen from the side with the apex rounded. Black; clypeus, labrum, mandibles (except tips), face, inner orbits narrowly above antennæ, posterior orbits, margin (anterior, posterior, and lateral) of pronotum, tegulæ, apical two-thirds of scutellum, metascutellum, a broad band of mesoepisternum, and metepisternum yellowish white; abdomen ferruginous, propodeum and apical two tergites black; legs black, four anterior coxæ, trochanters, apices of femora, entire tibiæ, and tarsi yellowish white; hind coxæ except a large spot on upper lateral surface, trochanters, basal fourth of hind tibiæ, and four apical joints of hind tarsi yellowish white; wings subhyaline, venation including stigma dark brown.

Male.—Length 9 mm. Agrees very well with the characters given for the female; differs in colour from the female in having the mesosternum ferruginous, in having all of the black of the legs (except hind tibiæ and basitarsus) replaced by ferruginous; apex of abdomen black; tergites with distinct punctures which become so close on the basal segments that the surface is coriaceous; hypopygidium very deeply arcuately emarginate apically.

Type-locality. Killara, Sydney, N. S. Wales, Australia.

Described from two females (one type) and one male collected at an altitude of 400 feet on August 17, 1913, by

R. E. Turner, after whom the species is named.

Type and allotype. British Museum (Natural History). Paratype. U.S. Nat. Mus.

Genus ANCYLONEURA, Cameron.

The genus Ancyloneura, Cameron, belongs to the tribe Euriini, and falls close to Neoeurys, Rohwer, but may be

separated from the last-mentioned genus by the obsolete antennal furrows and by having the hind basitarsus shorter

than the following joints.

The species which belong here have not been fully described. and seem to be closely related. The following key, which is based on literature, may aid in distinguishing the forms described :-

Key to the Species.

Hind femora black; antennæ 15-jointed (Kirby's figure) Hind femora reddish; antennæ with less than 15 1. varipes, Cameron. tennæ 12-jointed. (New Guinea.) wollastoni, Rohwer.

nigripes (Smith).

Ancyloneura wollastoni, sp. n.

In the absence of the first intercubitus this species differs from the recognized generic characters, but in all other ways

it agrees with my notes and with the description.

Female.—Length 4.5 mm. Shining, without apparent sculpture; median fovea rather deep, elongate, linear; postocellar line slightly shorter than the ocelloccipital line; postocellar area not defined anteriorly and defined laterally by rather broad depressions; antennæ 12-jointed, the third joint slightly longer than the fourth and fifth; from the third joint the joints gradually decrease in length until the eleventh, which is subequal in length with the twelfth; eleventh joint a little more than twice as wide as long; stigma about three times as long as greatest width, angulate near base and tapering to a narrow apex; first intercubitus wanting; third cubital cell as long on the radius as the combined first and second; second recurrent about twothirds the length of the second intercubitus from the base of the third cubital cell; sheath concealed; lower apical margin of lancets with regular rounded teeth. Black; apical part of femora (more extensively on posterior pair), anterior tibiæ, base of anterior tarsi, basal two-thirds of intermediate tibiæ, and basal half of hind tibiæ ferruginous; wings brown apically, hyaline basally; venation dark brown.

Type-locality. Iwaka River, New Guinea.

Described from one female, collected February 1911 by A. F. R. Wollaston.

Type. British Museum (Natural History).

Genus Polyclonus, Kirby.

In 'Genera Insectorum,' fasc. xxix. 1905, p. 40, Konow places the genus *Polyclonus*, Kirby, as a synonym of *Ancyloneura*, Cameron. This seems to the author to be wrong, and as very little is known concerning the genus the following notes, taken from specimens in the British Museum, and

made in 1909, may be of value:-

"A female of Polyclonus atratus, Kirby (genotype), from Melborne, Victoria, 'C. F. 8. 00, No. 1164,' proves the genus is a good one. It may be briefly described thus: Length 5 mm.; expanse 12.5 mm. Clypeus truncate; malar space very narrow, practically wanting; antennal furrows indistinct but complete; a distinct furrow from the anterior ocellus to between bases of antennæ; head strongly granular; antennæ wanting beyond 12th joint, each joint beyond the second with a ramus like Pterygophorus; scutum and scutellum shining, sparsely punctured; tarsal claws simple; venation like Perreyia (fig. 80, plate 39, Proc. U.S. Nat. Mus. vol. 29, 1906), except that the third cubital receives the second recurrent and the third cubital cell is longer than the second. Black; labrum, mandibles, tibiæ, and tarsi pallid; wings hyaline, iridescent; venation black."

From these characters and others gained from an incomplete generic synopsis the author is of the opinion that the genus belongs to the tribe Euriini, where it is easily distin-

guished by the ramose antennæ of both sexes.

Neoeurys tasmanica, sp. n.

This new species is closely allied to metallica, but may be separated by narrower sheath, darker stigma, and shorter distance between the second recurrent and second intercubitus.

Female.—Length 5 mm. Antennal furrows complete to ecciput; middle fovea shallow, wedge-shaped; postocellar furrow wanting; postocellar line subequal with the ocell-ocular line; antennæ 13-jointed, the third joint but slightly longer than the fourth; scape but slightly longer than the pedicellum; sculpture of the head fine and close; stigma slightly angled at base, then regularly tapering to apex; second recurrent received by the third cubital cell half the length of the second intercubitus from the base of the cell; prescutum and scutum medianly finely granular and somewhat opaque; sides of the scutum and scutellum shining; mesepisternum with small rather close punctures; sheath

slightly concave above, rounded apically, and tapering to the rather narrow base. Blue-black, with a faint bronzy tinge to head; palpi, apices of anterior femora, and all of the tibiæ rufo-ferruginous; wings dusky hyaline, venation (including

stigma) dark brown.

Male.—Length 3 mm. The male assigned here agrees closely; the middle fovea is somewhat deeper and the apices of all the femora are pale; the lower margin of the stigma is pale, and the second recurrent joins the third cubital cell somewhat further from the base. Hypopygidium narrow and truncate apically.

Type-locality. Tasmania.

Described from one female (type) collected on the summit of Mt. Wellington, 1904, by A. M. Lea, and one male (allotype) from Eaglehawk Neck, S.E. Tasmania, Feb. 12-Mar. 3, 1913, collected by R. E. Turner.

Type and allotype. Collection British Museum (Natural

History).

XIIII.—On some External Characters of Ruminant Artioductyla.—Part V. The Tragelaphine. By R. I. Рососк, F.R.S.

Subfamily TRAGELAPHINE.

The only fresh material available in 1910 for examination of the cutaneous glands of this group belonged to the genera Tetraceros, Boselaphus, and Trayelaphus. For the rest dependence had to be placed upon the inspection of dried skins and living examples, which yielded unsatisfactory results. Since that year additional material of those genera, as well as fresh examples of Strepsiceros, Limnotragus, and Taurotragus, have come into my hands, and these have enabled me to clear up some doubtful points.

Genus Tetraceros, Leach.

Tetraceros quadricornis, Blainv. (p. 921).

I have nothing to add to my description of the glands of this species published in 1910, except to say that an adult female had the glands of the false hoofs of the hind legs as